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UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
TRAN, PHILIP B

ART UNIT	PAPER NUMBER
2155	

NOTIFICATION DATE	DELIVERY MODE
07/03/2007	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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PTOL-90A (Rcv. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/644,009	TAKEUCHI ET AL.
	Examiner	Art Unit	
	Philip B. Tran	2155	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 September 2003</u>.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-21</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-21</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☒ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date <u>8/20/2003</u>.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Priority

1.   Acknowledgment is made of applicant's claim for foreign priority based on an

application filed in Japan on 11/26/2002. It is noted, however, that applicant has not

filed a certified copy of the foreign application (Japan 2002-341667) as required by 35

U.S.C. 119(b).

Claim Rejections - 35 USC § 112

2.   The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

3.   Claim 3 recites the limitation "the address translation rule" in line 2. There is

insufficient antecedent basis for this limitation in the claim.

Claim 4 recites the limitation "said address translation rule" in lines 2-3. There is

insufficient antecedent basis for this limitation in the claim.

Claim 6 recites the limitation "said address translation rule" in line 3. There is

insufficient antecedent basis for this limitation in the claim.

Claim 7 recites the limitation "said address translation rule" in lines 2-3. There is

insufficient antecedent basis for this limitation in the claim.

Claim 11 recites the limitations "the address" and "said address translation table"

in lines 11-13. There is insufficient antecedent basis for these limitations in the claim.

Appropriate corrections are required.

Claim Rejections - 35 U.S.C. § 102

4.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5.   Claims 1-12, 14 and 17 are rejected under 35 U.S.C. § 102(e) as being

anticipated by Kubota et al (Hereafter, Kubota), U.S. Pat. No. 6,934,763.

Regarding claim 1, Kubota teaches an address translator (= relay system)

comprising an interface connected to a plurality of communication networks including at

least a first communication network connected to a first host and a second

communication network connected to a second host (= interface connected to a plurality

of network domains) [see Fig. 1] and a table for translating addresses used in said first

communication network and addresses used in said second communication network (=

address translation table 7) [see Figs. 3 & 7 and Col. 7, Lines 42-48], wherein said

translation table contains discriminator to judge whether said address is native address

given to said first host or said second host or not (= inter domain connection judging

module 4a) [see Fig. 3 and Col. 8, Lines 30-55 and Col. 9, Lines 15-62 and Col. 11,

Lines 1-20].

Regarding claim 2, Kubota teaches an address translator comprising:

an interface connected to a plurality of communication networks including at least

a first communication network connected to a first host and a second communication

network connected to a second host (= interface connected to a plurality of network

domains) [see Fig. 1];

a memory (= memory 13) [see Fig. 2] storing address used in said first

communication network, address used in said second communication network (=

address translation table 7) [see Figs. 3 & 7 and Col. 7, Lines 42-48], and discriminator

to judge whether said address is the native address or not of said first host or said

second host (= inter domain connection judging module 4a) [see Fig. 3 and Col. 8, Lines

30-55 and Col. 9, Lines 15-62 and Col. 11, Lines 1-20]; and

a controller for executing translation of the address of said first communication

network and said second communication network (= CPU 14) [see Fig. 2 and Col. 6,

Lines 35-62].

Regarding claim 3, Kubota further teaches the address translator according to

claim 1, wherein the address translation rule of the address used in said first

communication network and the address used in said second communication network

and said discriminator are recorded in said table when said address translation is

executed (= address mapping and translation rule) [see Col. 8, Line 30 to Col. 9, Line

4].

Regarding claim 4, Kubota further teaches the address translator according to claim 2, wherein said controller records, to said memory, said address translation rule of the address used in said first communication network and the address used in said second communication network and said discriminator when said address translation is executed (= address mapping and translation rule) [see Col. 8, Line 30 to Col. 9, Line 4].

Regarding claim 5, Kubota further teaches the address translator according to claim 1, comprising a memory for storing said table (= memory 13) [see Fig. 2].

Regarding claim 6, Kubota further teaches the address translator according to claim 3, comprising a means for receiving setting instructions for said address translation rule from said first host or said second host [see Figs 1 & 3 and Col. 7, Lines 23-36 and Col. 8, Line 30 to Col. 9, Line 4].

Regarding claim 7, Kubota further teaches the address translator according to claim 4, comprising a means for inputting said address translation rule and a means for receiving setting instructions of said address translation rule from said first host or said second host [see Figs 1 & 3 and Col. 7, Line 23 to Col. 8, Line 14 and Col. 8, Line 30 to Col. 9, Line 4 and Col. 9, Lines 15-62].

Regarding claim 8, Kubota further teaches the address translator according to claim 1, comprising a console unit which displays said table [see Figs. 1 & 3 and Col. 7, Line 41 to Col. 8, Line 55].

Regarding claim 9, Kubota further teaches the address translator according to claim 2, comprising a console unit which displays contents of said memory [see Figs. 1 & 3 and Col. 7, Line 41 to Col. 8, Line 55].

Regarding claim 10, Kubota teaches a method for translating addresses comprising the steps of:

receiving packets transmitted from a first host via a first communication network (= receiving packets) [see Figs. 1 & 3 and Col. 7, Lines 23-41 and Col. 9, Lines 5-9];

translating said packets expressed with the protocol of said first communication network into the protocol of a second communication network connected with second hosts (= address mapping using address translation table 7 with different routing control rules) [see Figs. 3 & 7 and Col. 3, Line 60 to Col. 4, Line 28 and Col. 7, Lines 42-48];

generating an address translation rule for translation of said protocol (= address mapping and translation rule) [see Col. 8, Line 30 to Col. 9, Line 4]; and

registering discriminator for discriminating whether the address of said protocol is actually granted to said first host or said second host and said address translation rule to the address translation table (= inter domain connection judging module 4a) [see Fig. 3 and Col. 8, Lines 30-55 and Col. 9, Lines 15-62 and Col. 11, Lines 1-20].

Regarding claim 11, Kubota teaches a method for translating addresses

comprising the steps of:

receiving packets transmitted from hosts via the transmission source

communication network (= receiving packets) [see Figs. 1 & 3 and Col. 7, Lines 23-41

and Col. 9, Lines 5-9]; and

translating said packets expressed with the protocol of said transmission source

communication network to the protocol of the transmission destination communication

network of said packets (= address mapping using address translation table 7 with

different routing control rules) [see Figs. 3 & 7 and Col. 3, Line 60 to Col. 4, Line 28 and

Col. 7, Lines 42-48]; wherein

said step of translating said protocol further comprising the steps of: searching

the address used in said transmission destination communication network by referring

to said address translation table (= searching the address entry in the address

translation table) [see Col. 8, Line 37 to Col. 9, Line 59]; and

judging whether the transmission source address of said packet is actually

granted to said host or not (= inter domain connection judging module 4a) [see Fig. 3

and Col. 8, Lines 30-55 and Col. 9, Lines 15-62 and Col. 11, Lines 1-20].

Regarding claim 12, Kubota further teaches the method of translating addresses

according to claim 11, further comprising a step of discarding said received packet if the

address of said received packet is not actually granted to said host [see Col. 11, Lines 1-20 and Col 16, Lines 40-58 and Col. 17, Lines 29-36].

Regarding claim 14, Kubota further teaches the method for translating addresses according to claim 11, further comprising a step of assigning the address used in said transmission destination communication network if it is proved as a result of said search that the address used in said transmission destination communication network is not yet assigned to said host [see Col. 8, Line 37 to Col. 9, Line 59].

Regarding claim 17, Kubota further teaches the method for translating addresses according to claim 11, said translation of protocol is executed in the timing that setting instructions of address translation rule from said host are generated [see Col. 2, Lines 16-33 and Col. 11, Lines 1-67].

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kubota

et al (Hereafter, Kubota), U.S. Pat. No. 6,934,763 in view of Cain, U.S. Pat. No.

7,068,600.

Regarding claim 13, Kuboka does not explicitly teach notifying that said received

packet has been discarded to said transmission source communication network.

However, Cain, in the same field of data routing with a network of plurality of connected

nodes endeavor, discloses discarding received packet and notifying the source node

[see Cain, Col. 8, Lines 15-21]. It would have been obvious to one of ordinary skill in the

art at the time of the invention was made to incorporate the teaching of Kuboka in order

to efficiently control transmission of data packets in the network in such a manner that

unauthorized packets will not be translated and transmitted to the destination node and

thus reducing the network traffic.

8.   Claims 15-16 and 18-19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Kubota et al (Hereafter, Kubota), U.S. Pat. No. 6,934,763 in view of

Fraser et al (Hereafter, Fraser), U.S. Pat. No. 6,629,149.

Regarding claim 15, Kubota further teaches the method for translating addresses

according to claim 14, further comprising the step of recording the transmission source

address of said packet, said assigned address, and the discriminator suggesting that

said assigned address is an address to said address translation table [see Kubota, Col.

8, Line 37 to Col. 9, Line 59]. Kubota does not explicitly teach assigned address is a

temporary address. However, Fraser, in the same field of network addressing endeavor,

discloses assigning temporary address [see Fraser, Col. 2, Lines 5-24]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teaching of Fraser into the teaching of Kubota in order to quickly identify whether the devices in different network domains have a temporary or a permanent address assigned according to address translation table entries.

Regarding claim 16, Kubota further teaches the method for translating addresses according to claim 15, wherein the newly received packet is discarded when the packet having said assigned address which is set as the destination address through said translation of protocol is newly received [see Kubota, Col. 11, Lines 1-20 and Col 16, Lines 40-58 and Col. 17, Lines 29-36]. Kubota does not explicitly teach assigned address is a temporary address. However, Fraser, in the same field of network addressing endeavor, discloses assigning temporary address [see Fraser, Col. 2, Lines 5-24]. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to incorporate the teaching of Fraser into the teaching of Kubota for the same reasons set forth in claim 15.

Regarding claim 18, Kubota further teaches the method for translating addresses according to claim 14, comprising the steps of:

receiving a request inquiring said destination address used in the transmission destination communication network from said transmission source communication

network by designating the name of destination of the packet [see Kubota, Figs. 1 & 3

and Col. 7, Lines 23-41 and Col. 9, Lines 5-9];

transferring said inquiry request to a server storing the corresponding relationship

between said address and name [see Kubota, Figs. 8-9]; and

receiving a response to said inquiry request from said server whereby said

address is assigned, upon reception of said response from said server [see Kubota,

Col. 8, Line 37 to Col. 9, Line 59 and Col. 15, Lines 33-67]. Kubota does not explicitly

teach assigned address is a temporary address. However, Fraser, in the same field of

network addressing endeavor, discloses assigning temporary address [see Fraser, Col.

2, Lines 5-24]. It would have been obvious to one of ordinary skill in the art at the time of

the invention was made to incorporate the teaching of Fraser into the teaching of

Kubota for the same reasons set forth in claim 15.

Regarding claim 19, Kubota further teaches the method for translating addresses

according to claim 18, further comprising a step of registering the discriminator

suggesting that said assigned address is the address according to said address

translation table [see Kubota, Col. 8, Line 37 to Col. 9, Line 59]. Kubota does not

explicitly teach assigned address is a temporary address. However, Fraser, in the same

field of network addressing endeavor, discloses assigning temporary address [see

Fraser, Col. 2, Lines 5-24]. It would have been obvious to one of ordinary skill in the art

at the time of the invention was made to incorporate the teaching of Fraser into the

teaching of Kubota for the same reasons set forth in claim 15.

9.   Claims 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Kubota et al (Hereafter, Kubota), U.S. Pat. No. 6,934,763 in view of Cain, U.S. Pat. No.

7,068,600 and further in view of Fraser et al (Hereafter, Fraser), U.S. Pat. No.

6,629,149.

Regarding claim 20, Kubota further teaches the method for translating addresses

according to claim 15, wherein the address corresponding to the discriminator

suggesting said address is the native address of the host registered to said

transmission source communication network or said transmission destination

communication network [see Kubota, Col. 8, Line 37 to Col. 9, Line 59].

Kuboka does not explicitly teach occurrence of fault is notified to said

transmission source and transmission destination communication network. However,

Cain, in the same field of data routing with a network of plurality of connected nodes

endeavor, discloses discarding received packet and notifying the source node if fault is

occurred (unauthorized condition) [see Cain, Col. 8, Lines 15-21]. It would have been

obvious to one of ordinary skill in the art at the time of the invention was made to

incorporate the teaching of Kuboka in order to efficiently control transmission of data

packets in the network in such a manner that unauthorized packets (fault occurrence)

will not be translated and transmitted to the destination node and thus reducing the

network traffic.

In addition, Kubota and Cain do not explicitly teach assigned address is a

temporary address. However, Fraser, in the same field of network addressing endeavor,

discloses assigning temporary address [see Fraser, Col. 2, Lines 5-24]. It would have

been obvious to one of ordinary skill in the art at the time of the invention was made to

incorporate the teaching of Fraser into the teaching of Kubota and Cain in order to

quickly identify whether the devices in different network domains have a temporary or a

permanent address assigned according to address translation table entries.

Regarding claim 21, Kubota further teaches the method for translating addresses

according to claim 18, wherein the discriminator suggesting that the address notified

with the response from said server is the address is registered.

Kuboka does not explicitly teach occurrence of fault is notified to said

transmission source communication network. However, Cain, in the same field of data

routing with a network of plurality of connected nodes endeavor, discloses discarding

received packet and notifying the source node if fault is occurred (unauthorized

condition) [see Cain, Col. 8, Lines 15-21]. It would have been obvious to one of ordinary

skill in the art at the time of the invention was made to incorporate the teaching of

Kuboka in order to efficiently control transmission of data packets in the network in such

a manner that unauthorized packets (fault occurrence) will not be translated and

transmitted to the destination node and thus reducing the network traffic.

In addition, Kubota and Cain do not explicitly teach assigned address is a

temporary address. However, Fraser, in the same field of network addressing endeavor,

discloses assigning temporary address [see Fraser, Col. 2, Lines 5-24]. It would have

been obvious to one of ordinary skill in the art at the time of the invention was made to

incorporate the teaching of Fraser into the teaching of Kubota and Cain in order to

quickly identify whether the devices in different network domains have a temporary or a permanent address assigned according to address translation table entries.

Other References Cited

10.   The following references cited by the examiner but not relied upon are considered pertinent to applicant's disclosure.

    A) Borella et al, U.S. Pat. No. 6,708,219.

    B) Boden et al, U.S. Pat. No. 6,832,322.

    C) Kong, U.S. Pat. No. 7,206,312.

    D) Khello et al, U.S. Pat. No. 7,027,582.

    E) Boden et al, U.S. Pat. No. 6,615,357.

    F) Carey et al, U.S. Pat. No. 7,085,267.

    G) Brustoloni et al, U.S. Pat. No. 6,886,103.

    H) Yamaguchi et al, U.S. Pat. No. 7,233,995.

    I) Satapati et al, U.S. Pat. Application Pub. No. US 2004/0076180 A1.

    J) Zhang et al, U.S. Pat. Application Pub. No. US 2004/0001509 A1.

11.   A SHORTENED STATUTORY PERIOD FOR RESPONSE TO THIS ACTION IS SET TO EXPIRE THREE MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION. FAILURE TO RESPOND WITHIN THE PERIOD FOR RESPONSE WILL CAUSE THE APPLICATION TO BECOME ABANDONED (35 U.S.C. § 133). EXTENSIONS OF TIME MAY BE OBTAINED UNDER THE PROVISIONS OF 37 CAR 1.136(A).

12.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip Tran whose telephone number is (571) 272-3991. The Group fax phone number is (571) 273-8300. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar, can be reached on (571) 272-4006.

13.   Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
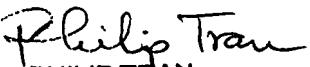
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June 20, 2007